

REMARKS

Claims 2-6, 18, 24, 27, and 28 are indicated as having allowable subject matter. Please note that Claim 28 is an independent claim and appears that it should be identified as allowed.

Rejection of Claims 1, 7, 8, 19, 20, 23 and 26 under 35 U.S.C. § 103(a)

Claims 1, 7, 8, 19, 20, 23 and 26 are rejected under 35 U.S.C. § 103(a) in view of U.S. Patent Application Publication No. US2002/0145860 A1, published October 10, 2002 naming Lee as an inventor (hereinafter "Lee") in view U.S. Patent 6,424,396, issued to Kim *et al.* on June 23, 2002 (hereinafter "Kim"). The Examiner states that a light guide plate in Lee has first and second sides. The first side includes a series of optical elements and the second side includes a series of plateaus for enhancing the brightness of the light and that the base planes and plateaus are not coplanar with the base planes.

Claims 1 and 19 state that the plateaus are substantially parallel but not coplanar with the base planes. In Claim 19, the plateaus are substantially parallel with the base planes. Lee does not disclose plateaus that are substantially parallel but not coplanar with the base planes. Instead, Lee discloses recesses 721, which are indentations. The recesses 721 are for enhancing the brightness of the light and are formed in various shapes, such as a triangular horn shape, a tetragonal horn shape, a pentagonal horn shape, a hexagonal horn shape and the like.

Lee does not disclose or suggest plateaus because they would not work in his product construction, thus there is no motivation to combine the teachings of Lee and Kim. "Plateau" type grooves in the Lee configuration would actually promote light loss from the output surface of the Lee material. It appears that the examiner is assuming that Applicant's grooves with plateaus would redirect light described in Lee as b and c pathways in Figure 2 in the same manner as the prismatic recesses which Lee describes. That is not accurate.

Further, Kim does not remedy the deficiencies of Lee. Kim relates to grooves that are made on a substrate that is then wetted with liquid crystals. These grooves have a chemical/mechanical function which serve to align the surface layer of liquid crystals to one surface of a pixel cell. This is similar to what is done to many liquid crystal displays in that these substrates are normally brushed with a velvet (or the like) fabric to create microgrooves on the

surface(s) which align that surface layer of liquid crystals. The structure disclosed in Kim does not alter the optical properties of the material or product.

To relate Kim to Applicant's claimed invention is improper. The functions are different, the materials are different, and the dimensions are different. Applicant's claimed grooves serve to reduce the contact wetting of other materials to our surface. Kim's grooves only serve to align the wetting of the liquid crystals to the surface.

The plateaus 14 of Kim are formed on a lower substrate 10. A pixel electrode 11 is formed over the plateaus such that the stepped portions are formed. The plateaus are formed by a gate insulating layer 12 and a protection layer 13. See column 3, lines 7-11. There is no disclosure or suggestion that the gate insulating layer and the protection layer are suitable for an optical film through which light can pass. Kim is directed to the electrical internal components of a vertically aligned liquid crystal display. There is no suggestion in Kim that an optical structure film can include a side having a series of stepped plateaus and a series of base planes that run along a first axis wherein said plateaus and base planes alternate along a second axis and said plateaus are substantially parallel but not coplanar with the base planes.

The application of a grooved structure, as claimed by Applicant, to the smooth surface of the linear prism films improves significantly the light directing capability of the films by increasing light throughout at the grooved structure surface and prism interface and redirecting wide incident angle light rays while reducing wet out. The base planes and plateaus are of such sizes to reduce the visibility of Newton's rings and moiré fringes while minimizing surface to surface contact with films or the peaks of prisms, thereby reducing wet out. There is no disclosure or suggestion by Lee or Kim or combination thereof that such a linear prism film would result.

Kim relates to grooves that are made on a substrate that is then wet with liquid crystals. These grooves have a chemical-mechanical function that serve to align the surface layer of liquid crystals to one surface of a pixel cell. This is similar to what is done to many liquid crystal displays in that these substrates are normally brushed with a velvet (or the like) fabric to create microgrooves on the surface(s) which align that surface layer of liquid crystals. The Kim structure does not alter the optical properties of the material or product.

Further, there is no suggestion of a light directing structure having a first directing film and a second directing film where each have a surface having a plurality of stepped plateaus and a plurality of base planes wherein the plateaus have an elevation different than the base plane and that the plateau and base planes are substantially parallel to each other and oriented in parallel relative to the peaks of the linear prisms. There is no disclosure or suggestion of such a limitation in either Lee or Kim or in combination thereof.

Therefore, the claims are not obvious over Lee in view of Kim.

Rejection of Claims 9 and 12-15 under 35 U.S.C. § 103(a)

Claims 9 and 12-15 are rejected under 35 U.S.C. § 103(a) over Lee and Kim as applied to Claim 8 and further in view of U.S. Patent Application Publication No. US2002/015793 A1, published on August 8, 2002 and naming Oda *et al.* as inventors (hereinafter "Oda").

There is no suggestion to combine the three references to result in a film with plateaus that are substantially parallel but are not coplanar with the base planes in combination with triangular linear prisms with a particular top angle.

Therefore, the claims are not obvious in view of Lee, Kim, and Oda alone or in combination thereof.

Rejection of Claims 10 and 11 under 35 U.S.C. § 103(a)

Claims 10 and 11 are rejected under 35 U.S.C. § 103(a) over Lee and Kim as applied to Claim 9 and further in view of U.S. Patent Application Publication No. US2002/015793 A1, published on August 8, 2002 and naming Oda *et al.* as inventors (hereinafter "Oda").

There is no suggestion to combine the three references to result in a film with plateaus that are substantially parallel but are not coplanar with the base planes in combination with triangular linear prisms with a particular prism shape.

Therefore, the claims are not obvious in view of Lee, Kim, and Oda alone or in combination thereof.

Rejection of Claims 21 and 22 under 35 U.S.C. § 103(a)

Claims 21 and 22 are rejected under 35 U.S.C. § 103(a) over Lee and Kim as applied to Claim 19 and further in view of U.S. Patent Application Publication No. US2002/015793 A1, published on August 8, 2002 and naming Oda *et al.* as inventors (hereinafter "Oda").

There is no suggestion to combine the three references to result in a film with plateaus that are substantially parallel but are not coplanar with the base planes in combination with triangular linear prisms with a particular top angle.

Therefore, the claims are not obvious in view of Lee, Kim, and Oda alone or in combination thereof.

Rejection of Claims 16 and 17 under 35 U.S.C. § 103(a)

Claims 16 and 17 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Lee and Oda as applied to Claim 1 and further in view of U.S. Patent 5,396,350, issued to Beeson *et al.* (hereinafter "Beeson").

Beeson *et al.* do not remedy the deficiencies of Lee and Oda. Beeson *et al.* are related to creating a planar light source from tubular or spot sources. The presently claimed is directed to redirecting light that exits a planar waveguide. There is no disclosure or suggestion in any of the references to a series of stepped plateaus and to a series of base planes that run along a first axis wherein the plateaus and base planes alternate wherein the linear optical elements on the opposite side are pitched at regular intervals or include lenticular linear elements.

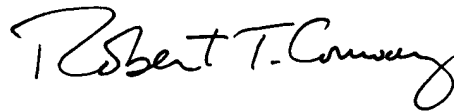
Therefore, the claims are not obvious in view of Lee, Oda, and Beeson, alone or in combination thereof.

CONCLUSION

In view of the above amendments and remarks, it is believed that all claims are in condition for allowance, and it is respectfully requested that the application be passed to issue. If the Examiner believes that a telephone conference would expedite prosecution of this case, the Examiner is invited to call the undersigned.

Respectfully submitted,

HAMILTON, BROOK, SMITH &
REYNOLDS, P.C.

A handwritten signature in black ink, appearing to read "Robert T. Conway". The signature is fluid and cursive, with the first name "Robert" being more prominent.

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